

REMARKS

Claims 1-63 are pending in the present Application. Applicants have withdrawn Claims 1-15, 32, 53-58, and 61-62 as a result of a restriction requirement; and the Examiner has withdrawn Claims 16, 19-21, 23, 25-31, 33-38 as being directed to a non-elected invention. Claim 64 has been amended for clarification purposes. Reconsideration and allowance of the claims are respectfully requested in view of the following remarks.

Election/Restriction Requirement

The Examiner has withdrawn claims 16, 19-21, 23, 25-31, 33-38 as being directed to a non-elected invention since the prior amendments to these claims made them distinct from the previously elected invention. These claims are directed to a material or coating comprising at least one inter pass boundary having a porosity of about 20 to about 95 volume percent. Applicants hereby elect the invention of these claims and therefore request the Examiner to remove the withdrawal of these claims.

35 U.S.C. § 103(a) Rejection

Claim 64 has been rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over an article by Padture et al. entitled “Towards Durable Thermal Barrier Coatings with Novel Microstructures Deposited by Solution Precursor Plasma Spray” (*Acta Mater.*, 49 (2001) 2251-2257) (hereinafter “Padture”) in view of U.S. Patent Application Publication No. 2002/0031658 to Chow et al. (hereinafter “Chow”).

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). See MPEP 2143.03. As amended, independent Claim 54, from which Claim 64 depends, is drawn to a coating disposed upon a substrate that comprises at least one interpass boundary, wherein no inter pass boundaries are present within about 50 micrometers of an interface between the substrate and the coating. Support for the amendment to Claim 54 can be found in paragraph

37 of the present application, which states that inter pass boundaries can be present in the coatings described therein. Further, paragraph 37 indicates that in some embodiments, the inter pass boundaries can be disposed in the coatings such that there are no inter pass boundaries within about 50 micrometers of the substrate/coating interface.

As acknowledged by the Examiner on page 4 of the Office Action, Padture and Chow are both silent as to the presence of inter pass boundaries in the coatings described therein. Also as indicated by the Examiner, this silence can be taken to mean that these references fail to teach coatings with inter pass boundaries. Further, neither Padture nor Chow suggests that if inter pass boundaries were present in the coatings disclosed therein, none of those inter pass boundaries would be located within about 50 micrometers of an interface between the substrate and the coating.

Accordingly, Applicants assert that the cited art, whether taken singly or in combination, fails to teach or suggest all the limitations of independent Claim 59 and dependent Claim 64, which depends from Claim 59. Applicants therefore respectfully request reconsideration and withdrawal of the 35 U.S.C. 103(a) rejection applied to Claim 64.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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